AMENDMENTS TO THE CLAIMS

Please amend the claims without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents, as follows.

IN THE CLAIMS:

1. (Currently Amended) A radio-frequency (rf) control system for operating a component at least in part in response to an rf signal from a remote control device manipulable by a user, the rf signal including at least one preamble pulse followed by a data command signal, the system comprising:

at least one rf receiver associated with the component and configured for processing the rf signal; and

at least one controller associated with the component and controlling the receiver, the controller causing the receiver to be energized according to an energization paradigm selected from the group consisting of:

energizing for a first energized period, then deenergizing for a short period if no preamble pulse is detected, then energizing for a second energized period, and then deenergizing, at least if no preamble pulse is detected, for period longer than the short period, prior to reenergizing the receiver;

energizing for a first time period and then energizing for a second time period after a rest period the length of which ensures detection, in at least one of the time periods, of a preamble pulse if a preamble has been generated; and

energizing the receiver once sometime within a period of a preamble pulse,

wherein the preamble pulse is not a data command signal, wherein ~~in the step of energizing the receiver~~ when the controller causes the receiver to be energized, an activation duration of the receiver is substantially shorter than the period of a preamble pulse.

2. (Previously Presented) The system of claim 1, wherein each preamble pulse has a duty cycle in excess of fifty percent (50%).

3. (Previously Presented) The system of claim 2, wherein the rf signal includes at least six preamble pulses.

4. (Original) The system of claim 1, comprising a fast filter and a slow filter each electrically interposed between the receiver and controller.

5. (Original) The system of claim 1, wherein the controller operates at a low clock frequency during at least most of the long period and at a high clock frequency at least when the receiver is energized.

6. (Original) The system of claim 5, wherein the controller operates at an intermediate frequency between the low and high frequencies just prior to energizing the receiver after the long period.

7. (Original) The system of claim 1, comprising at least one bypass capacitor electrically connected to the receiver and to ground, the bypass capacitor having a capacitance of below five hundred picoFarads (500 pF).

8. (Original) The system of claim 7, comprising plural bypass capacitors, at least one having a capacitance not substantially more than one hundred picoFarads (100 pF).

9. (Original) The system of claim 1, comprising at least one surface acoustic wave (SAW) resonator circuit establishing an intermediate frequency (IF) oscillator for the receiver.

10. (Original) The system of claim 9, comprising an LC filter associated with the receiver for filtering an IF signal.

11. (Original) The system of claim 1, wherein the component is powered by at least one battery, and the system further comprises a DC-DC down converter electrically interposed between the battery and receiver to provide a voltage to the receiver.

12. (Original) The system of claim 1; comprising the component and a motor coupled to an operator of a component and controlled by the controller, the component being selected from the group of components consisting of window coverings, awnings, skylight covers, and screens.

13. (Currently Amended) A radio-frequency (rf) control system for controlling a component of a window covering, awning, security screen, projection screen, lighting system or the like at least in part in response to an rf signal from a remote control device manipulable by a user, comprising:

at least one rf receiver associated with the component and configured for processing an rf signal; and

at least one controller associated with the component and controlling the receiver,

wherein the controller operates at a low clock frequency during at least most of a receiver sleep period and at a high clock frequency at least when the receiver is energized, and

wherein the preamble pulse is not a data command signal, wherein when the controller causes the receiver to be energized ~~in the step of energizing the receiver~~, an activation duration of the receiver is substantially shorter than the period of a preamble pulse~~,~~.

14. (Original) The system of claim 13, wherein the controller operates at an intermediate frequency between the low and high frequencies just prior to energizing the receiver after the receiver sleep period.

15. (Original) The system of claim 13, wherein the rf signal includes a preamble including plural pulses, each having a duty cycle in excess of fifty percent (50%).

16. (Previously Presented) The system of claim 15, wherein the preamble includes at least six pulses.

17. (Original) The system of claim 13, comprising a fast filter and a slow filter each electrically interposed between the receiver and controller.

18. (Original) The system of claim 13, comprising at least one bypass capacitor electrically connected to the receiver and to ground, the bypass capacitor having a

capacitance of below five hundred picoFarads (500 pF).

19. (Original) The system of claim 18, comprising plural bypass capacitors, at least one having a capacitance not substantially more than one hundred picoFarads (100 pF).

20. (Original) The system of claim 13, comprising at least one surface acoustic wave (SAW) resonator circuit establishing an intermediate frequency (IF) oscillator for the receiver.

21. (Original) The system of claim 20, comprising an LC filter associated with the receiver for filtering an IF signal.

22. (Original) The system of claim 13, wherein the component is powered by at least one battery, and the system further comprises a DC-DC down converter electrically interposed between the battery and receiver to provide a voltage to the receiver.

23. (Original) The system of claim 13, comprising the component and a motor coupled to an operator of a component and controlled by the controller, the component being selected from the group of components consisting of window coverings, awnings, skylight covers, and screens.

24. (Currently Amended) A radio-frequency (rf) control system for controlling a component of a window covering, awning, security screen, projection screen,

lighting system or the like at least in part in response to an rf signal from a remote control device manipulable by a user, comprising:

at least one rf receiver associated with the component and configured for processing an rf signal;

at least one controller associated with the component and controlling the receiver; and

at least one bypass capacitor electrically connected to the receiver and to ground, the bypass capacitor having a capacitance of below five hundred picoFarads (500 pF),

wherein the preamble pulse is not a data command signal, wherein when the controller causes the receiver to be energized ~~in a step of energizing the receiver~~, an activation duration of the receiver is substantially shorter than the period of a preamble pulse.

25. (Original) The system of claim 24, comprising plural bypass capacitors, at least one having a capacitance not substantially more than one hundred picoFarads (100 pF).

26. (Original) The system of claim 24, wherein the rf signal includes a preamble including plural pulses, each having a duty cycle in excess of fifty percent (50%).

27. (Original) The system of claim 26, wherein the preamble includes at least six pulses.

28. (Original) The system of claim 24, comprising a fast filter and a slow filter each electrically interposed between the receiver and controller.

29. (Original) The system of claim 24, wherein the controller operates at a low clock frequency during at least most of a long receiver sleep period and at a high clock frequency at least when the receiver is energized.

30. (Original) The system of claim 29, wherein the controller operates at an intermediate frequency between the low and high frequencies just prior to energizing the receiver after the long receiver sleep period.

31. (Original) The system of claim 24, comprising at least one surface acoustic wave (SAW) resonator circuit establishing an intermediate frequency (IF) oscillator for the receiver.

32. (Original) The system of claim 31, comprising an LC filter associated with the receiver for filtering an IF signal.

33. (Original) The system of claim 24, wherein the component is powered by at least one battery, and the system further comprises a DC-DC down converter electrically interposed between the battery and receiver to provide a voltage to the receiver.

34. (Original) The system of claim 24, comprising the component and a motor coupled to an operator of a component and controlled by the controller, the component being selected from the group of components consisting of window coverings, awnings, skylight covers, and screens.

35. (Currently Amended) A radio-frequency (rf) control system for controlling a component of a window covering, awning, security screen, projection screen, lighting system or the like at least in part in response to an rf signal from a remote control device manipulable by a user, comprising:

at least one rf receiver associated with the component and configured for processing an rf signal;

at least one controller associated with the component and controlling the receiver; and

at least one surface acoustic wave (SAW) resonator circuit establishing an intermediate frequency (IF) oscillator for the receiver,

wherein the preamble pulse is not a data command signal, wherein when the controller causes the receiver to be energized ~~in a step of energizing the receiver~~, an activation duration of the receiver is substantially shorter than the period of a preamble pulse.

36. (Original) The system of claim 35, comprising an LC filter associated with the receiver for filtering an IF signal.

37. (Original) The system of claim 35, wherein the rf signal includes a preamble including plural pulses, each having a duty cycle in excess of fifty percent (50%).

38. (Original) The system of claim 37, wherein the preamble includes at least six pulses.

39. (Original) The system of claim 35, comprising a fast filter and a slow filter each electrically interposed between the receiver and the controller.

40. (Original) The system of claim 35, wherein the controller operates at a low clock frequency during at least most of a long sleep period and at a high clock frequency at least when the receiver is energized.

41. (Original) The system of claim 40, wherein the controller operates at an intermediate frequency between the low and high frequencies just prior to energizing the receiver after the long period.

42. (Original) The system of claim 35, comprising at least one bypass capacitor electrically connected to the receiver and to ground, the bypass capacitor having a capacitance of below five hundred picoFarads (500 pF).

43. (Original) The system of claim 42, comprising plural bypass capacitors, at least one having a capacitance not substantially more than one hundred picoFarads (100 pF).

44. (Original) The system of claim 35, wherein the component is powered by at least one battery, and the system further comprises a DC-DC down converter electrically interposed between the battery and receiver to provide a voltage to the receiver.

45. (Original) The system of claim 35, comprising the component and a motor coupled to an operator of a component and controlled by the controller, the component being selected from the group of components consisting of window coverings, awnings, skylight

covers, and screens.

46. (Currently Amended) A radio-frequency (rf) control system for controlling a component of a window covering, awning, security screen, projection screen, lighting system or the like at least in part in response to an rf signal from a remote control device manipulable by a user, comprising:

at least one rf receiver associated with the component and configured for processing an rf signal;

at least one controller associated with the component and controlling the receiver; and

a DC-DC down converter electrically interposed between a battery and receiver to provide a voltage to the receiver,

wherein the preamble pulse is not a data command signal, wherein when the controller causes the receiver to be energized ~~in a step of energizing the receiver~~, an activation duration of the receiver is substantially shorter than the period of a preamble pulse.

47. (Original) The system of claim 46, wherein the rf signal includes a preamble including plural pulses, each having a duty cycle in excess of fifty percent (50%).

48. (Original) The system of claim 47, wherein the preamble includes at least six pulses.

49. (Original) The system of claim 48, comprising a fast filter and a slow filter each electrically interposed between the receiver and the controller.

50. (Original) The system of claim 46, wherein the controller operates at a low clock frequency during at least most of a long period and at a high clock frequency at least when the receiver is energized.

51. (Original) The system of claim 50, wherein the controller operates at an intermediate frequency between the low and high frequencies just prior to energizing the receiver after the long period.

52. (Original) The system of claim 46, comprising at least one bypass capacitor electrically connected to the receiver and to ground, the bypass capacitor having a capacitance of below five hundred picoFarads (500 pF).

53. (Original) The system of claim 52, comprising plural bypass capacitors, at least one having a capacitance not substantially more than one hundred picoFarads (100 pF).

54. (Original) The system of claim 46, comprising at least one surface acoustic wave (SAW) resonator circuit establishing an intermediate frequency (IF) oscillator for the receiver.

55. (Original) The system of claim 54, comprising an LC filter associated with the receiver for filtering an IF signal.

56. (Original) The system of claim 46, wherein the component is powered

by at least one battery, and the system further comprises a DC-DC down converter electrically interposed between the battery and receiver to provide a voltage to the receiver.

57. (Original) The system of claim 46, comprising the component and a motor coupled to an operator of a component and controlled by the controller, the component being selected from the group of components consisting of window coverings, awnings, skylight covers, and screens.

58. (Currently Amended) A radio-frequency (rf) control system for controlling a component of a window covering, awning, security screen, projection screen, lighting system or the like at least in part in response to an rf signal from a remote control device manipulable by a user, comprising:

at least one rf receiver associated with the component and configured for processing an rf signal; and

at least one controller associated with the component and controlling the receiver,

wherein the controller adaptively adjusts a noise threshold above which a carrier must be detected to indicate the presence of a control signal, and

wherein the preamble pulse is not a data command signal, wherein when the controller causes the receiver to be energized ~~in a step of energizing the receiver~~, an activation duration of the receiver is substantially shorter than the period of a preamble pulse.

59. (Original) The system of claim 58, wherein the controller operates at an intermediate frequency between low and high frequencies just prior to energizing the receiver after a receiver sleep period.

60. (Original) The system of claim 58, wherein the rf signal includes a preamble including plural pulses, each having a duty cycle in excess of fifty percent (50%).

61. (Original) The system of claim 60, wherein the preamble includes at least six pulses.

62. (Original) The system of claim 58, comprising a fast filter and a slow filter each electrically interposed between the receiver and controller.

63. (Original) The system of claim 58, comprising at least one bypass capacitor electrically connected to the receiver and to ground, the bypass capacitor having a capacitance of below five hundred picoFarads (500 pF).

64. (Original) The system of claim 63, comprising plural bypass capacitors, at least one having a capacitance not substantially more than one hundred picoFarads (100 pF).

65. (Original) The system of claim 58, comprising at least one surface acoustic wave (SAW) resonator circuit establishing an intermediate frequency (IF) oscillator for the receiver.

66. (Original) The system of claim 65, comprising an LC filter associated with the receiver for filtering an IF signal.

67. (Original) The system of claim 58, wherein the component is powered by at least one battery, and the system further comprises a DC-DC down converter electrically interposed between the battery and receiver to provide a voltage to the receiver.

68. (Original) The system of claim 58, comprising the component and a motor coupled to an operator of a component and controlled by the controller, the component being selected from the group of components consisting of window coverings, awnings, skylight covers, and screens.

69. (Original) The system of claim 1, wherein the controller adaptively adjusts a noise threshold above which a carrier must be detected to indicate the presence of a control signal.

70. (Original) The system of claim 13, wherein the controller adaptively adjusts a noise threshold above which a carrier must be detected to indicate the presence of a control signal.

71. (Original) The system of claim 24, wherein the controller adaptively adjusts a noise threshold above which a carrier must be detected to indicate the presence of a control signal.

72. (Original) The system of claim 35, wherein the controller adaptively adjusts a noise threshold above which a carrier must be detected to indicate the presence of a

control signal.

73. (Original) The system of claim 46, wherein the controller adaptively adjusts a noise threshold above which a carrier must be detected to indicate the presence of a control signal.

74. (Original) The system of claim 1, wherein the controller causes the receiver to be energized according to the following paradigm: energizing for a first energized period, then deenergizing for a short period if no preamble signal is detected, then energizing for a second energized period, and then deenergizing, at least if no preamble signal is detected, for period longer than the short period, prior to reenergizing the receiver.

75. (Withdrawn) The system of claim 1, wherein the controller causes the receiver to be energized according to the following paradigm: energizing for a first time period and then energizing for a second time period after a staggered rest period the length of which equals an integer multiple of one-half of a pulse period plus or minus a time delta, the time delta being less than one-half the pulse period.

76. (Withdrawn) The system of claim 1, wherein the controller causes the receiver to be energized according to the following paradigm: energizing the receiver once sometime within a period of a relatively long preamble pulse.

77. (Withdrawn) A control system for operating a component (10) at least in part in response to a signal from a remote control device (28) manipulable by a user, the system comprising:

at least one receiver (40) configured for processing a signal when being activated;

at least one controller (56) causing the receiver (40) to be activated periodically during a wake-up event comprising at least an activation period (B, B', B") and deactivated if no signal is detected during the wake-up event;

wherein the signal includes at least one preamble pulse (P) during a pre-synchronization cycle followed by at least a data command signal, and

wherein the receiver (40) is activated according to a series of wake-up events in such a way that, during the whole duration of a pre-synchronization cycle, the receiver is at least activated during two activation periods and at most two activation periods occur during one and a same preamble pulse.

78. (Withdrawn) The control system of claim 77, wherein the time period between the end of a first wake-up event and the beginning of a subsequent wake-up event is superior to 70% of the whole duration of the pre-synchronization cycle.

79. (Previously Presented) The system of claim 1, wherein the activation duration is approximately 80 microseconds when the period of the preamble pulse is approximately 5000 microseconds.